

AMENDMENT

In the Specification:

Please amend the specification as follows:

Beginning on page 20, spanning lines 3-5, please replace with the following paragraph:

FIG. 6A shows a presentation of nucleic acid sequences comprising *attB* and *attH*, respectively (SEQ ID NO:21 and SEQ ID NO:22). FIG. 6B shows a representation of partial sequences of *attP* and *attP** (SEQ ID NO:23 and SEQ ID NO:24). (A): Sequence comparison between *attB* and *attH*. The Int core binding sites B and B' in *attB* are marked with a dash in top of the sequences. The Int core binding sites H and H' in *attH* are marked with a dashed line in top of the sequences. The overlap sequences are characterized by open rectangles. Differences in the sequences are marked with a perpendicular double dashes. The numbering of the residues in the core and overlap regions relate to the center of the overlap designated with O and defined by Landy and Ross ((1977), Science, **197**, pp.1147). The sequence from -9 to +11 is the *attB* and *attH* site, respectively. (B): Sequence comparison between the partial sequences of *attP* and *attP**, corresponding to *attB* and *attH*, respectively. The designations are used as in FIG. 6A.

Beginning on page 21, spanning lines 23-28 and page 22, spanning lines 1-4, please replace with the following paragraph:

The eukaryotic expression vectors for wild-type Int (pKEXInt), Int-h (pKEXInt-h), Int-h/218 (pKEXInt-h/218) and pEL13 are derivatives of pKEX-2-XR (Rittner et al. (1991), Methods Mol. Cell. Biol., **2**, pp. 176). Said vector includes the human cytomegalo virus promotor/enhancer element (CMV) and the RNA splicing and polyadenylation signal elements of the small simian virus 40 (SV40) tumor antigen. The Int genes were cloned by PCR with the following primers:

(3343) 5'-GCTCTAGACCACCATGGGAAGAAGGCGAAGTCA-3' (SEQ ID NO:1), located at the 5' end of the Int gene and (3289) 5'-AAGGAAAGCGGCCGCTCATTATTTGATTTC AATTTTGTCC-3' (SEQ ID NO:2), located at the 3' end.

Beginning on page 22, spanning lines 15-23, please replace with the following paragraph:

Starting from *attP attP** was constructed by PCR mutagenesis. The following oligonucleotides were used:

(O3) 5'-G TTCAGCTTTT TGATACTAAGTTG-3' (SEQ ID NO:3),
(O4) 5'-CAACTAGTATCAAAAAGCTGAAC-3' (SEQ ID NO:4),
(PC) 5'-TTGATAGCTCTTCCGCTTTCTGTTACAGGTC ACTAATACC-3' (SEQ ID NO:5)
and
(PD) 5'-ACGGTTGCTCTTCCAGCCAGGGAGTGGGACAAAATTGA-3' (SEQ ID NO:6).

Beginning on page 23, spanning lines 1-12, please replace with the following paragraph:

The substrate vectors are derivatives of pEGFP (Clontech). The recombination cassettes are under the control of the CMV promoter, guaranteeing a strong constitutive expression. pGFP*attB/attP* was constructed by cutting the GFP gene (green fluorescence protein) out of pEGFP by AgeI and BamHI first. The wild-type *attB* sequence was inserted as double stranded oligonucleotide into the vector cleaved with AgeI using the following oligonucleotides:

(B1OB) 5'-CCGGTTGAAGCCTGCTTTTTTATACTAACTTGAGCGAACGC-3' (SEQ ID NO:7) and
(BOB1) 5'-AATTGCGTTCGCTCAAGTTAGTATAAAAAAGCAGGCTTCAA-3' (SEQ ID NO:8).

Beginning on page 23, spanning lines 14-18, please replace with the following paragraph:

The wild-type *attP* sequence was amplified by PCR from the vector pAB3 (Dröge, P. and Cozzarelli, N. (1989) Proc. Natl. Acad. Sci., **86**, pp. 6062) using the following primers:

(p7) 5'-TCCCCCGGGAGGGAGTGGGACAAAATTGA-3' (SEQ ID NO:9) and
(p6) 5'-GGGGATCCTCTGTTACAGGTC ACTAATAC-3' (SEQ ID NO:10).

Beginning on page 23, spanning lines 30-31 and page 24, spanning lines 1-7, please replace with the following paragraph:

With the exception of the recombination sequences, pGFPattL/attR is identical to pGFPattB/attP. The vector was constructed by first recombining pGFPattB/attP in *E. coli* leading to the formation of attL and attR. The subsequently with regard to the CMV promotor correctly orientated GFP gene was excised with a partial restriction reaction with BsiEI and HindIII. The GFP gene was first of all amplified by PCR using the following primers to insert it in inverted orientation with regard to the CMV promotor:

(p2) 5'-AATCCGCGGTCGGAGCTCGAGATCTGAGTCC-3' ([SEQ ID NO:11](#)) and
(p3) 5'-AATCCCAAGCTTCCACCATGGTGAGCAAGGG-3' ([SEQ ID NO: 12](#)) (FIG. 3).

Beginning on page 24, spanning lines 18-22, please replace with the following paragraph:
The human attB homologue, attH, was amplified from purified human DNA by PCR using the following primers:

(B3) 5'-GCTCTAGATTAGCAGAAATTCTTTTG-3' ([SEQ ID NO:13](#)) and
(B2) 5'-AACTGCAGTAAAAAGCATGCTCATCACCCC-3' ([SEQ ID NO:14](#)).

Beginning on page 26, spanning lines 16-24, please replace with the following paragraph:
To prove intramolecular, integrative and excisive recombination 0.4 µg genomic DNA was amplified by PCR using 20 to 50 pmol of the following primers:

(p1) 5'-GGCAAACCGGTTGAAGCCTGCTTTT-3' ([SEQ ID NO:15](#));
(p2) 5'-AATCCGCGGTCGGAGCTCGAGATCTGAGTCC-3' ([SEQ ID NO:11](#));
(p3) 5'-AATCCCAAGCTTCCACCATGGTGAGCAAGGG-3' ([SEQ ID NO:12](#));
(p4) 5'-AACCTCTACAAATGTGGTATGG-3' ([SEQ ID NO:16](#)),
(p5) 5'-TACCATGGTGATGCGGTTTTG-3' ([SEQ ID NO:17](#));
(p6) 5'-GGGGATCCTCTGTTACAGGTCATAATAC ([SEQ ID NO:10](#));
(p7) 5'-TCCCCCGGGAGGGAGTGGGACAAAATTGA-3' ([SEQ ID NO:9](#)).

Beginning on page 27, spanning lines 1-6, please replace with the following paragraph:

Intermolecular integrative recombination of pEL13 was detected as follows. About 400 ng of the genomic DNA of surviving cell populations was incubated with the following oligonucleotides as PCR primers:

(attx1) 5'-AGTAGGAATTCAGTTGATTCATAGTGACTGC-3' (SEQ ID NO:18) and
(B2) 5'-AACTGCAGTAAAAAGCATGCTCATCACCCC-3' (SEQ ID NO:14).

Beginning on page 27, spanning lines 12-18, please replace with the following paragraph:

The reverse transcriptase PCR (RT-PCR) was carried out with 4 µg isolated RNA. First, the cDNAs were synthesized using oligo-dT primers according to the instructions of the manufacturer (First Strand Synthesis Kit, Pharmacia). Second, a quarter of said cDNAs was used as a template for the subsequent PCR using primers p3 and p4. To test for deletion instead of inversion isolated genomic DNA was amplified with the primers p5 and p6. Beta actin transcripts were analyzed starting from said cDNAs using the primers

(AS) 5'-TAAAACGCAGCTCAGTAACAGTCCG-3' (SEQ ID NO:19) and
(S) 5'-TGGAATCCTGTGGCATCCATGAAAC-3' (SEQ ID NO:20).